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=> s phosphorescent protein
L1            2 PHOSPHORESCENT PROTEIN

=> d 1-2 bib ab

L1   ANSWER 1 OF 2  BIOSIS  COPYRIGHT (c) 2004 The Thomson Corporation.  on STN
AN   1995:386861  BIOSIS
DN   PREV199598401161
TI   Synthesis of phosphorescent metalloporphyrins with isothiocyanate group.
AU   Ponamoreva, O. N.; Rumyantseva, V. D.; Mironov, A. F. [Reprint author];
     Chudinov, A. V.
CS   ul. 26 Bakinskikh Komissarov d. 1, korp. 1, kv. 73, 117571 Moscow, Russia
SO   Bioorganicheskaya Khimiya, (1995) Vol. 21, No. 4, pp. 296-300.
     CODEN: BIKHD7. ISSN: 0132-3423.
DT   Article
LA   Russian
ED   Entered STN: 13 Sep 1995
     Last Updated on STN: 13 Sep 1995
AB   A synthesis of palladium complexes of 6,7-bis(N-alpha-lysino)mesoporphyrin
     IX and its isothiocyanate derivative as prospective phosphorescent
     protein probes was performed.

L1   ANSWER 2 OF 2  BIOSIS  COPYRIGHT (c) 2004 The Thomson Corporation.  on STN
AN   1988:475253  BIOSIS
DN   PREV198835105143; BR35:105143
TI   PHOSPHORESCENT PROTEIN CONJUGATES IN AQUEOUS
     OXYGENATED SOLUTIONS APPLICATIONS FOR MACROMOLECULAR SPECTROSCOPY AND
     PHOSPHORESCENCE MICROSCOPY.
AU   MARRIOTT G [Reprint author]; JOVIN T M
CS   MAX PLANCK INST BIOPHYSIKALISCHE CHEMIE, POSTFACH 2841, D-3400 GOETTINGEN
SO   Cytometry, (1988) No. SUPPL. 2, pp. 4.
     Meeting Info.: XII INTERNATIONAL MEETING OF THE SOCIETY FOR ANALYTICAL
     CYTOLOGY, BRECKENRIDGE, COLORADO, USA, SEPTEMBER 4-9, 1988. CYTOMETRY.
     CODEN: CYTODQ. ISSN: 0196-4763.
DT   Conference; (Meeting)
FS   BR
LA   ENGLISH
ED   Entered STN: 25 Oct 1988
     Last Updated on STN: 25 Oct 1988


=> s phosphorescent (2a) protein
L2           10 PHOSPHORESCENT (2A) PROTEIN

=> s l2 not l1
L3            8 L2 NOT L1

=> duplicate remove l3
DUPLICATE PREFERENCE IS 'MEDLINE, BIOSIS'
KEEP DUPLICATES FROM MORE THAN ONE FILE?  Y/(N):n
PROCESSING COMPLETED FOR L3
L4             5 DUPLICATE REMOVE L3  (3 DUPLICATES REMOVED)

=> d 1-5 bib ab

L4   ANSWER 1 OF 5      MEDLINE on STN                    DUPLICATE 1
AN   2001235988      MEDLINE
DN   PubMed ID: 11237341
TI   Monofunctional derivatives of coproporphyrins for phosphorescent
     labeling of proteins and binding assays.
AU   O'Riordan T C; Soini A E; Papkovsky D B
CS   Biochemistry Department, National University of Ireland, Cork, Lee
     Maltings, Prospect Row, Cork, Ireland.
SO   Analytical biochemistry, (2001 Mar15) 290 (2) 366-75.
     Journal code: 0370535. ISSN: 0003-2697.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
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EM 200105
ED Entered STN: 20010517
Last Updated on STN: 20010517
Entered Medline: 20010503
AB p-Isothiocyanatophenyl derivatives of Pt(II)- and Pd(II)-coproporphyrin I are described as stable monofunctional reagents which enable simple covalent labeling of proteins and other biomolecules under mild conditions in aqueous solutions. Labeling procedure was optimized for antibodies, avidin, and neutravidin. Photophysical properties of resulting conjugates important for their use in binding assays based on time-resolved phosphorescence detection were studied. The functional activity and long-term storage stability of antibody conjugates were assessed in comparison with unmodified proteins. The new labels and their conjugates were evaluated in the solid-phase immunoassays using commercial time-resolved phosphorescence readers Victor(2) and Arcus-1230 (Wallac). Potential applications of these reagents in in vitro diagnostics are discussed.

L4 ANSWER 2 OF 5 MEDLINE on STN DUPLICATE 2
AN 2000150420 MEDLINE
DN PubMed ID: 10684627
TI Hydrogen exchange at the core of Escherichia coli alkaline phosphatase studied by room-temperature tryptophan phosphorescence.
AU Fischer C J; Schauerte J A; Wisser K C; Gafni A; Steel D G
CS Institute of Gerontology, Applied Physics Program, Department of Biological Chemistry, Department of Physics, University of Michigan, Ann Arbor, Michigan 48109-2007, USA.
NC AG09761 (NIA)
GM08270 (NIGMS)
SO Biochemistry, (2000 Feb 15) 39 (6) 1455-61.
Journal code: 0370623. ISSN: 0006-2960.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200003
ED Entered STN: 20000327
Last Updated on STN: 20000327
Entered Medline: 20000313
AB The room-temperature tryptophan (Trp) phosphorescence lifetime is sensitive to details of the local environment and has been shown to increase significantly in some proteins following H-D exchange. Careful analysis of the phosphorescence lifetime distribution of Trp 109 in Escherichia coli alkaline phosphatase (AP) in solution as a function of time during the H-D exchange shows that this process corresponds to a two-state reaction resulting from the deuteration of a single, specific hydrogen in the core of the protein. The absence of a pH dependence of the exchange rate suggests that the exchange is not an EX2 process, and therefore, a certain degree of unfolding is required for exchange to occur. This discovery opens up the use of phosphorescence-detected hydrogen exchange as a sensitive tool for monitoring the local susceptibility and activation energy for exchange in **proteins** having a **phosphorescent** Trp and, for example, for studying the effects of local mutations upon that susceptibility.

L4 ANSWER 3 OF 5 BIOSIS on STN
AN 1989:395959 BIOSIS
DN PREV198937062607; BR37:62607
TI ACCESSIBILITY OF THE HEME RING OF HEME **PROTEINS** PROBED BY **PHOSPHORESCENT** 6 BROMO-2-NAPHTHYLSULFATE.
AU BAYLES S W [Reprint author]; BECKHAM S; MONTREM A; SCHUH M D; WRIGHT T M
CS DEP CHEM, DAVIDSON COLL, DAVIDSON, NC 28036, USA
SO Photochemistry and Photobiology, (1989) Vol. 49, No. SUPPL, pp. 48S.
Meeting Info.: 17TH ANNUAL MEETING OF THE AMERICAN SOCIETY FOR PHOTOBIOLOGY, BOSTON, MASSACHUSETTS, USA, JULY 2-6, 1989. PHOTOCHEM PHOTOBIOL.
CODEN: PHCBAP. ISSN: 0031-8655.
DT Conference; (Meeting)

FS BR
LA ENGLISH
ED Entered STN: 22 Aug 1989
Last Updated on STN: 29 Aug 1989

L4 ANSWER 4 OF 5 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 1984:12824 BIOSIS
DN PREV198426012824; BR26:12824
TI EFFECT OF SALINITY AND NITROGEN SOURCE ON **PROTEIN** ELECTRO **PHOSPHORESCENT** SPECTRUM IN PEA ROOTS.
AU RAKOVA N M [Reprint author]; KLYSHEV L K; ZHABAEVA M U
CS INST BOT, ACAD SCI KAZ SSR, ALMA-ATA, USSR
SO Izvestiya Akademii Nauk Kazakhskoi SSR Seriya Biologicheskaya, (1982) No. 3, pp. 7-10.
CODEN: IKABAR. ISSN: 0002-3183.
DT Article
FS BR
LA RUSSIAN

L4 ANSWER 5 OF 5 MEDLINE on STN DUPLICATE 3
AN 2001401823 MEDLINE
DN PubMed ID: 11452868
TI Studies of **phosphorescent** probes for **proteins**.
AU McCarville M; Hauxwell R
CS Department of Chemistry, Western Michigan University, Kalamazoo, Mich. 49001, USA.
SO Biochimica et biophysica acta, (1971 Dec 28) 251 (3) 285-91.
Journal code: 0217513. ISSN: 0006-3002.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200108
ED Entered STN: 20010806
Last Updated on STN: 20010806
Entered Medline: 20010802
AB 1. Certain capabilities and limitations of using bound phosphorescent chromophores to study protein structure were investigated. Carbonic anhydrase inhibitors with three different arrangements of singlet and triplet energy levels relative to those of tryptophan were used to determine their ability to transfer triplet energy. 2. Ligands representing each of the three spectroscopic energy level arrangements were found to exhibit triplet-triplet energy transfer with a tryptophan residue at the active site of carbonic anhydrase. This greatly increases the number of ligands which may be useful as phosphorescent probes. 3. The efficiency of energy transfer occurs to varying degrees depending upon the inhibitor. This is a potential source of data for determining the position of the ligand in the binding site.